Tilden
Three Rivers
Cadiz
Orangedale
Beeville
BEE
Blanconia
Ryanville
Vidauri
Simmons
McMULLEN
George West
Clareville
Chase Field N.A.S.
Humble Camp
REFUGIO
Refugio
Dinero
Olmos
Skidmore
Woodsboro
Holiday Beach
ARANSAS N.W.R.
LIVE OAK
Lake Corpus Christi
Mt. Lucas
Argenta
Papalote
Bonnie View
Copano Vil.
Lamar
Lagarto
Tynan
St. Paul
Bayside
Clegg
Mathis
Sinton
Fulton
Fulton Mansion
Loma Alta
Annarose
Lake Corpus Christi S.P.
Pernitas Pt.
SAN PATRICIO
Rockport
ARANSAS
Wesley Seale Dam
W. Sinton
Seven Sisters
Rancho de la Parita
Midway
Wade
Sandia
Edroy
Sodville
Taft
Estes
Palm Harbor
Odem
Gregory
Millsville
Orange Grove
San Patricio
Aransas Pass
Freer
DUVAL
JIM WELLS
Alfred
Lipantitlan St. Hist. Site
Bluntzer
Calallen
Portland
Ingleside
FREE FERRY
Port Aransas
Banquete
Rabb
Violet
Corpus Christi Bay
San Diego
Rosita
Alice
Agua Dulce
Robstown
San Juan
Corpus Christi
Corpus Christi N.A.S.
Mustang Island S.P.
Rancho Alegre
Driscoll
Petronila
Corpus Christi St. Univ.
Guajillo
Palito Blanco
Ben Bolt
Palo Alto
NUECES
Benavides
Kings Ranch
Bishop
Chapman Ranch
San Jose
King Ranch
Kingsville N.A.S.
Kingsville
Texas A&I Univ.
Laguna Largo
Rios
Realitos
El. 66 ft.
Ricardo
Concepcion
Cruz Calle
KLEBERG
Loyola Beach
Ramirez
Premont
Riviera Beach
Sejita
Riviera
Griffins Pt.
Falfurrias
Los Olmos
Sarita
PADRE ISLAND NATIONAL SEASHORE
Laguna Salado
KENEDY

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ZONE OF ENDANGERING INFLUENCE COMPUTATION

(Main Program)

EPA Permit Number

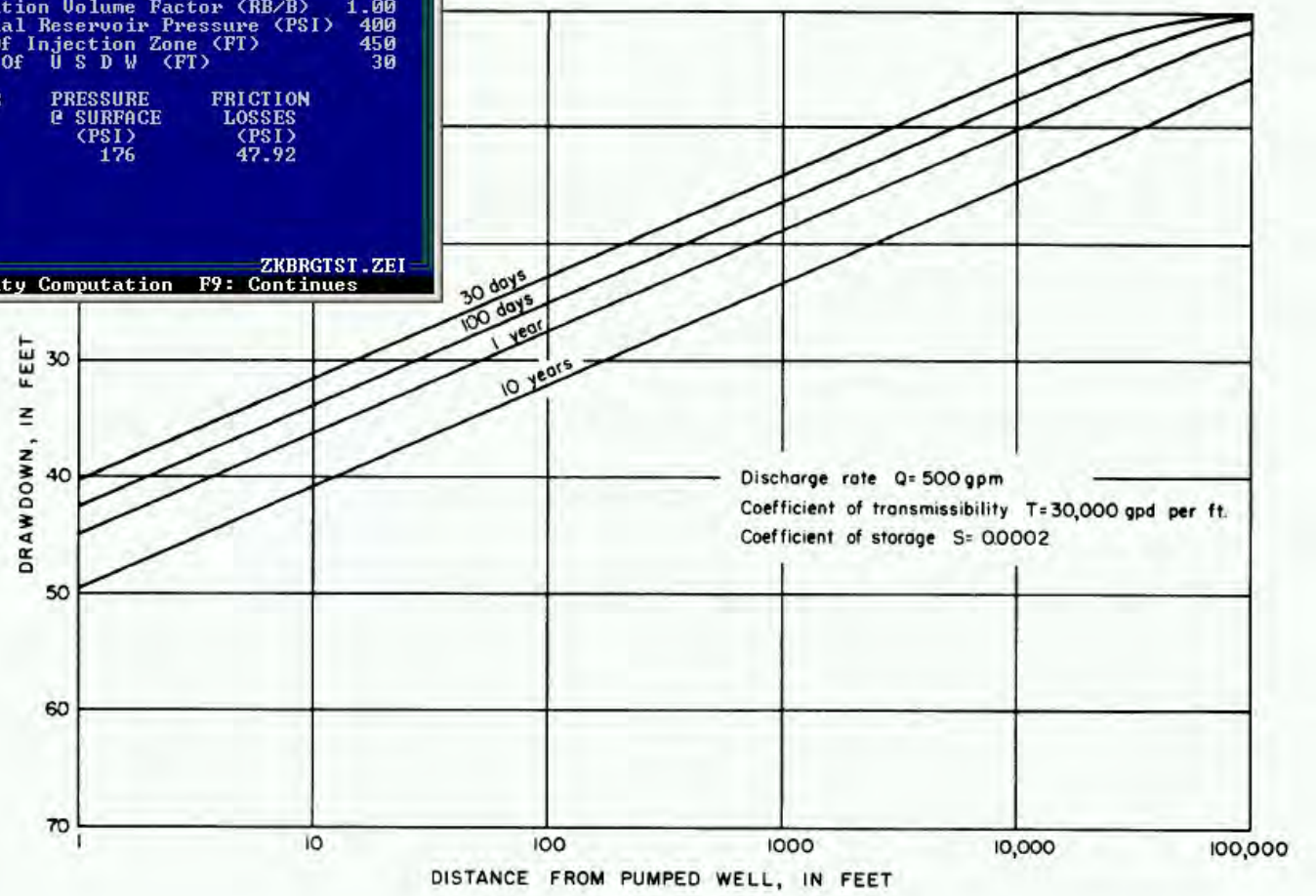
Kleberg County Wells

Specific Gravity	1.050	Permeability (MD)	4700.0
Injection Rate (BPD)	-17500	Porosity (PCT)	35.0
Pay Thickness (FT)	230	Formation Volume Factor (RB/B)	1.00
Compressibility (PSI)^(-1)	1.9D-06	Initial Reservoir Pressure (PSI)	400
Fluid Viscosity (CP)	0.76	Top Of Injection Zone (FT)	450
Injection Time (DAYS)	30	Base Of U S D W (FT)	30

RADIUS OF INFLUENCE (FT)	INCREMENTAL PRESSURE (PSI)	RESERVOIR PRESSURE (PSI)	PRESSURE @ SURFACE (PSI)	FRICTION LOSSES (PSI)
1	-19	381	176	47.92
10	-15	385		
100	-11	389		
1000	-7	393		
1320	-7	393		

ZKBRGTST.ZEI

F7: Prints Screen F8: Views Water Viscosity Computation F9: Continues



8.00 x 10.51 in

The Drawdown Test in TWDB's paper No. 173 indicates a value of k=4700 md

In the aquifer, the Pressure at a distance r from the well is given by:

$$p = p_e + \frac{q\mu B_o}{14.16\ kh} Ei\left[\frac{-r^2}{4\ \eta t}\right]$$

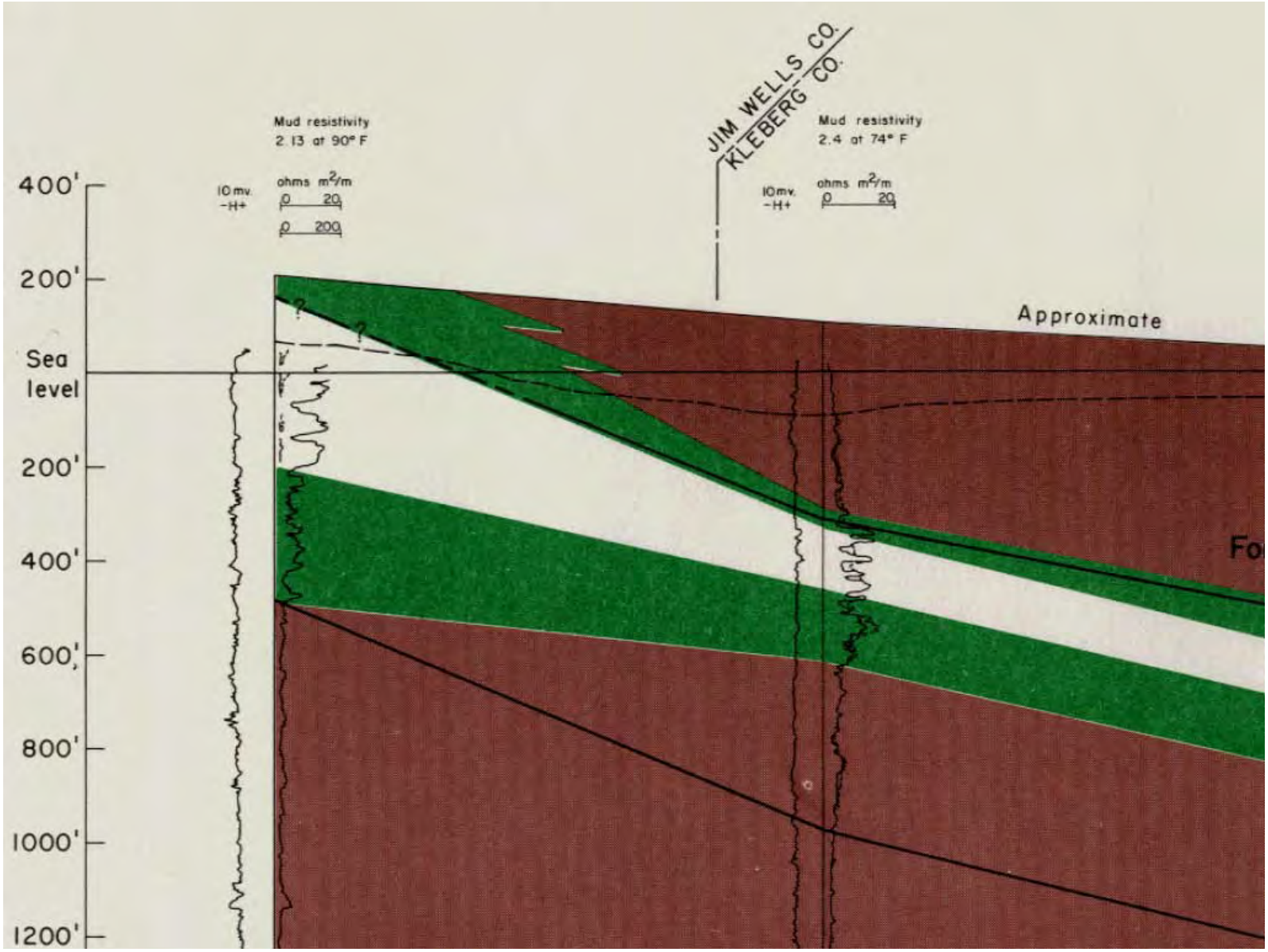
The parameters within the square brackets give the value of x in the series below

The Diffusivity Coefficient was computed using:

$$\eta = \frac{6.32\ k}{\mu c_e \phi_{HC}} =$$

$$Ei(-x) = \ln x + 0.5772 - x + \frac{x^2}{2 \times 2!} - \frac{x^3}{3 \times 3!} + \frac{x^4}{4 \times 4!} - \cdots \frac{x^n}{n \times n!}$$

The Exponential Integral Ei was computed with the above series expanded to x^5



The permeable interval in the Goliad sand was estimated as 230 feet thick

Goliad Aquifer Supply Rate for Kingsville

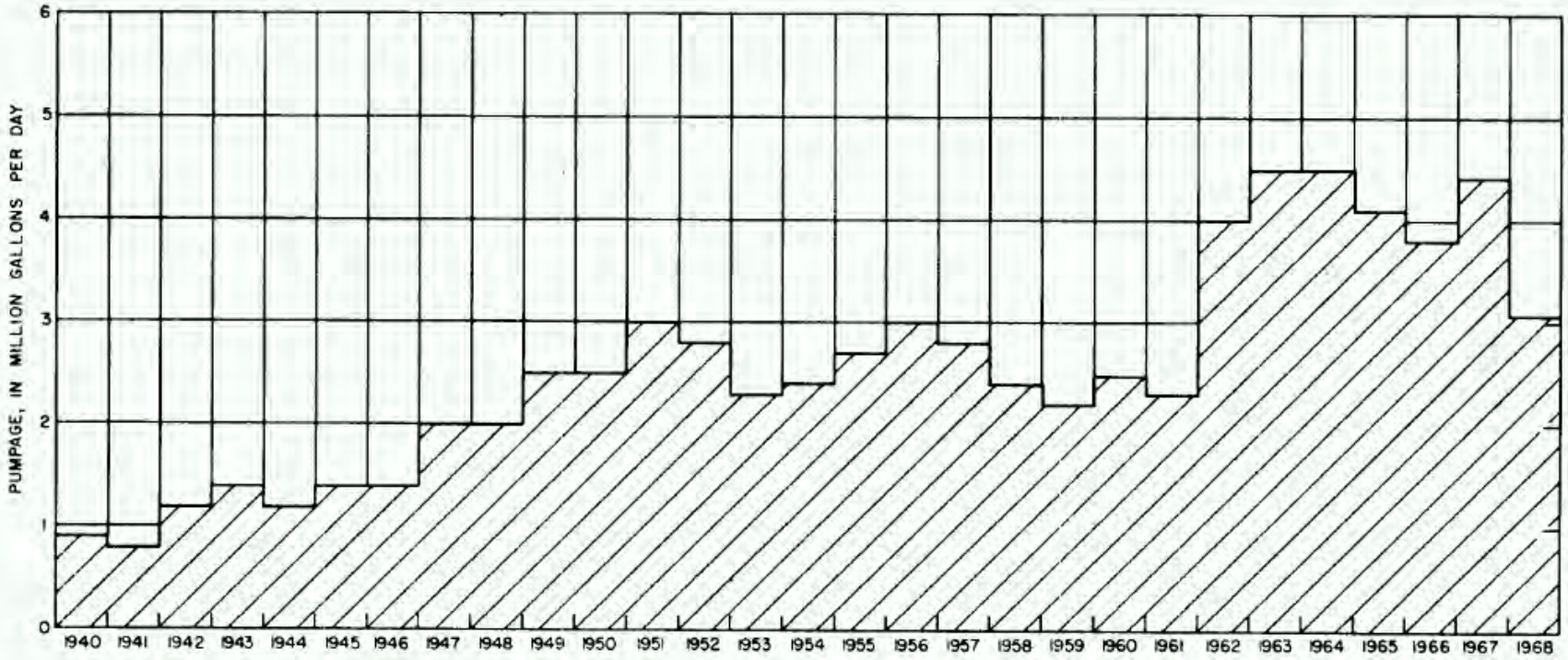
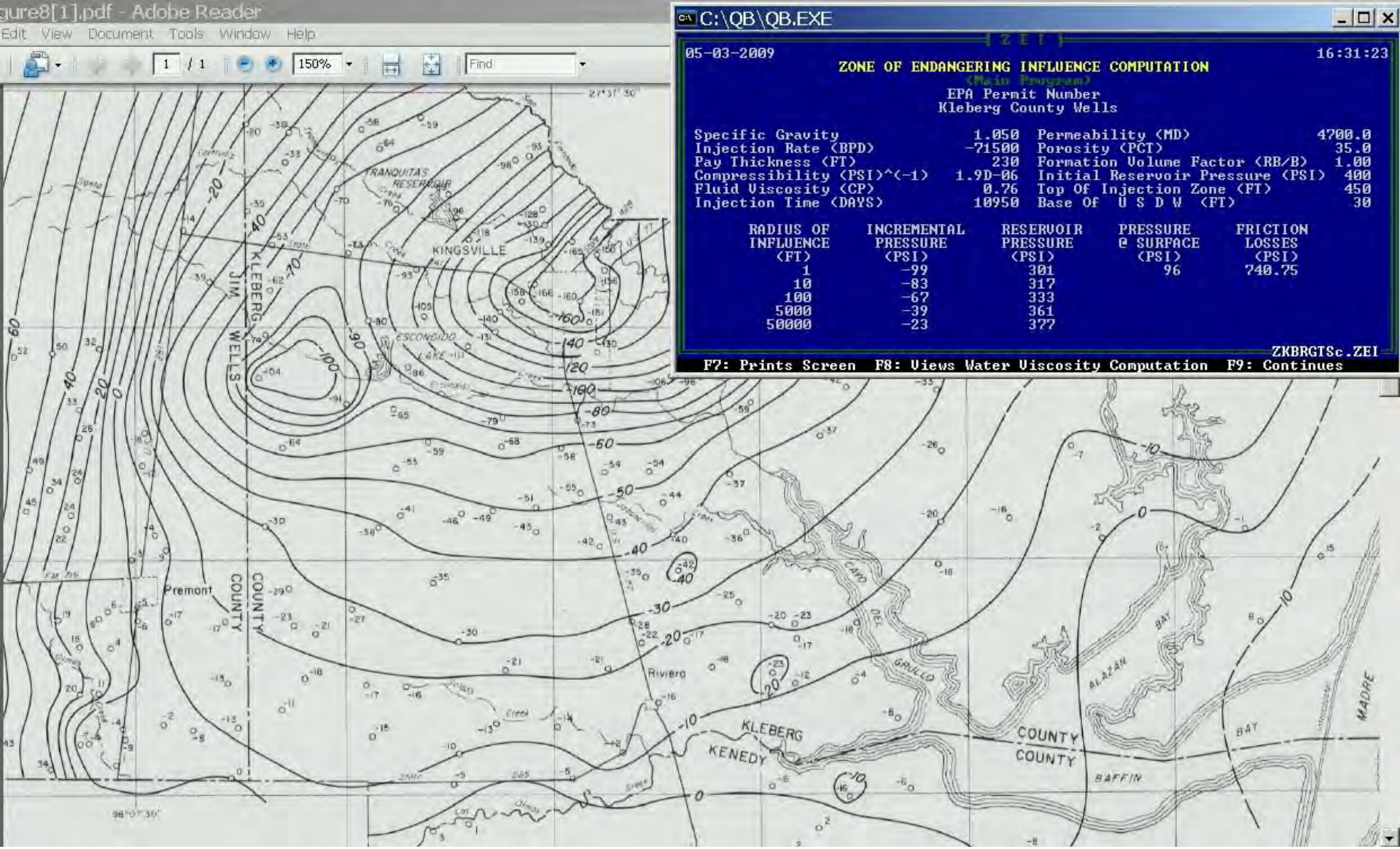


Figure 7.—Average Daily Pumpage of Ground Water for Public Supply by the City of Kingsville, 1940-68

Average Water Production Rate of Roughly 3 MMGals/Day Over 30 Years



The estimated pressure Drawdown @ r=50,000 ft approaches the mapped value